Teton Environmental Health LLC

1106 Lowell Drive
Idaho Falls ID 83402
Phone (208) 523-6713 Fax (208) 542-0164
www.teton-env.com
e-mail: dkn@teton-env.com
Industrial Hygiene and Occupational Safety Services

December 10, 2013

Denise Cooley, Buyer
Idaho Transportation Department
PO Box 97
Rigby ID 83442

Subject: Air and Surface Sampling Results for ITD Facility, 206 N. Yellowstone, Rigby, ID; Teton Environmental Health LLC Project 13026

Dear Denise,

Thank you for allowing Teton Environmental Health LLC the opportunity to provide industrial hygiene services for the Idaho Transportation Department (ITD). This letter and attachments document results of sampling that was performed at the subject location on November 29, 2013. The sampling was conducted at the request of the Idaho Transportation Department in response to concerns about possible airborne asbestos fibers in the break room following removal of asbestos-containing flooring. The flooring had been removed about six months previous to the sampling.

The samples were collected by a Certified Industrial Hygienist (CIH) certified by the American Board of Industrial Hygiene (ABIH) in the comprehensive practice of industrial hygiene. Air samples were collected using pre- and post-calibrated air sampling pumps in accordance with National Institute of Occupational Safety and Health (NIOSH) method 7400. Surface dust samples were collected following American Standards and Test Methods (ASTM) Method ASTM D6480-99. Field blanks were prepared and submitted with each sample set. All samples were submitted under chain of custody to EMSL Analytical, Inc., for analysis. EMSL Analytical Inc. is accredited by the American Industrial Hygiene Association (AIHA). Air samples were analyzed using NIOSH method 7400, using phase-contrast microscopy. This method counts all fibers and is equivalent to the Occupational Safety and Health Administration (OSHA) reference method contained in Appendix B of 29 Code of Federal Regulations (CFR) 1926.1101. Analysis of air samples was also performed using the protocol contained in the Asbestos Hazard Emergency Response Act (AHERA) Method 763, which employs transmission electron microscopy (TEM), and is capable of differentiating between asbestos and other fibers. Copies of the chain of

custody forms and laboratory analytical reports are attached to this letter. Sample results are summarized in Tables 1 and 2 below.

Sample number	Location	Results, f/cc*	Results, s/mm²*	Reference Regulatory Limit	
				OSHA	AHERA
13026-01	Warehouse, 2nd row from N wall; below HVAC outlet	0.004	ND	0.01 f/cc	70 s/mm²
13026-02	Break room, approximate center	0.002	ND	0.01 f/cc	70 s/mm²
13026-03	Hallway into break area - at west doorway into restroom	<0.002	ND	0.01 f/cc	70 s/mm²
13026-04	Break room, SE corner	0.003	ND	0.01 f/cc	70 s/mm²
13026-05	Shop - outside door into break area	<0.002	ND	0.01 f/cc	70 s/mm²
13026-06	Field blank	ND	N/A	0.01 f/cc	70 s/mm²
13026-07	Field blank	ND	N/A	0.01f/cc	70 s/mm²

*Results are reported as fibers/cubic centimeter of air sampled for NIOSH 7400 method, or structures/square millimeter of filter analyzed for AHERA TEM method. ND: None detected.

Table 1. Summary of air sampling results, ITD Facility, 206 N. Yellowstone, Rigby ID, 11/29/13.

Sample number	Sample location	Results
13026-08	Top surface of warehouse shelf; below HVAC outlet	<2.99 chrysotile asbestos structures
13026-09	Top surface of HVAC distribution duct in restroom; about 4' from west wall	No asbestos structures detected
13026-10	Top surface of conduit in SE corner of break room	12 chrysotile asbestos structures
13026-11	Top surface of over-sink cabinets and cupboard doors in break room	<2.99 chrysotile asbestos structures
13026-12	Top surface of Tool Box #420 in shop	No asbestos structures detected
13026-13	Field blank	No asbestos structures detected

Table 2. Summary of surface sample results, ITD Facility, 206 N. Yellowstone, Rigby ID, 11/29/13.

Discussion of Results

Air sample results were well below the industry-accepted "clean air" limit for occupied areas adjacent to asbestos removal activities of 0.01 fibers per cubic centimeter (0.01 f/cc) of air sampled; this limit is listed in the table for comparison purposes. Personal samples were not collected as part of this sampling effort, however, the area samples are below the OSHA permissible exposure limit (PEL) for asbestos of 0.1 f/cc. Analysis of air samples using transmission electron microscopy found no asbestos fibers on any of the samples. The Environmental Protection Agency limit of 70 asbestos structures per square millimeter (70 s/mm^2) of filter is also cited in the table for comparison.

Three of the settled dust on surfaces samples were found to contain some chrysotile asbestos fibers. These results are not an indication of widespread fiber deposits throughout the facility; the type of asbestos that was found, chrysotile, is the most common type of asbestos used in the United States and could have come from any number of sources. There is no way to positively determine the originating source of the asbestos, nor is there any way to correlate asbestos in settled dust and airborne asbestos fiber concentrations. There is no regulatory limit or standard for asbestos fibers in settled dust.

Recommendations

Based on the results of surface dust sampling and the knowledge that asbestos-containing building materials were removed from the break room without use of the OSHA-required work practices, it is recommended that horizontal surfaces in the break room and adjacent restroom, and the north side of the warehouse (defined as the area north of the center aisle that runs E-W through the area), be cleaned using vacuums equipped with high efficiency particulate air (HEPA) filters. Workers with at least Class IV asbestos worker training should perform this work. In the interest of worker safety and to facilitate efficient work progress, access to the areas during cleaning should be restricted to the asbestos workers. Because there are areas with significant accumulations of settled dust, it is recommended that the workers performing the vacuuming wear, as a minimum, half-face respirators with HEPA filters.

Based on the results of air sampling, airborne fibers at the facility were found to be within regulatory limits on the date of sample collection, and use of electron microscopy did not find any asbestos structures on the air samples collected. These results may not be representative of airborne fiber concentrations at or around the time that the asbestos-containing materials were removed from the facility. However, asbestos fibers in floor tile are very difficult to separate from the binders in the tile without significant effort, such as grinding, sanding, use of power saws, and similar methods.

OSHA regulations require that building owners either presume that certain building materials contain asbestos, or have an EPA-accredited Building Inspector perform an inspection, which may include sampling, to identify installed asbestos-containing building materials. Awareness training that communicates results of the inspection must be provided to building occupants, and persons performing work which could disturb the installed asbestos-containing materials. Teton Environmental Health LLC is able to perform inspections, provide worker training, or provide other industrial hygiene services for the ITD. Please contact me if you would like a cost estimate for these services.

Thank you again for allowing Teton Environmental Health LLC to provide industrial hygiene support for the Idaho Transportation Department. If you have any questions regarding this report or the attachments, please don't hesitate to contact me.

Best regards,

Debra K. Nims

Debra K. Nims MS CIH CSP

Attachments: as stated

161318977

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*: 161318977

EMSL ANALYTICAL, INC.
2001 EAST 52ND STREET
INDIANAPOLIS, IN. 46205
PHONE: (317) 803-2997
FAX: (317) 803-3047

Company : Teton Environmental Health, Inc.	EMSL-Bill to: ☒ Same ☐ Different If Bill to is Different note instructions in Comments**
Street: Teton Environmental Health, Inc.	*Third Party Billing requires written authorization from third party*
City: Idaho Falls / State/Province: ID	Zip/Postal Code: 83402 / Country:
Report To (Name): Debra K. Nims	[redacted]
Telephone #: 208-523-6713	Email Address: dkn@tetonenvironmental.com
Project Name/Number: ITD - Rigby Facility; 13026	
Please Provide Results: ☐ Fax ☒ Email / Purchase Order: 13026	U.S. State Samples Taken: ID

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hours ☐ 6 Hours ☒ 24 Hrs ☐ 48 Hrs ☐ 3 Days ☐ 4 Days ☐ 5 Days ☐ 10 Days

**For TEM Air 3 hours/6 hours, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PCM - Air
☒ NIOSH 7400
☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
☐ PLM EPA 600/R-93/116 (<1%)
☐ PLM EPA NOB (<1%)
Point Count
☐ 400 (<0.25%) ☐ 1000 (<0.1%)
Point Count w/Gravimetric
☐ 400 (<0.25%) ☐ 1000 (<0.1%)
☐ NYS 198.1 (friable in NY)
☐ NYS 198.6 NOB (non-friable-NY)
☐ NIOSH 9002 (<1%)

TEM - Air
☒ AHERA 40 CFR, Part 763
☐ NIOSH 7402
☐ EPA Level II
☐ ISO 10312

TEM - Bulk
☐ TEM EPA NOB
☐ NYS NOB 198 4 (non-friable-NY)
☐ Chatfield SOP
☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
Fibers >10µm ☐ Waste ☐ Drinking
All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
☐ Microvac - ASTM D 5755
☐ Wipe - ASTM D6480
☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
☐ PLM CARB 435 - A (0.25% sensitivity)
☐ PLM CARB 435 - B (0.1% sensitivity)
☐ TEM CARB 435 - B (0.1% sensitivity)
☐ TEM CARB 435 - C (0.01% sensitivity)
☐ EPA Protocol (Semi-Quantitative)
☐ EPA Protocol (Quantitative)

Other:
☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group**

Samplers Name: | **Samplers Signature:**

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
13026-01	Warehouse	1254 l	11/29/13
13026-02	Break room	1254 l	
13026-03	Hallway near locker/restroom entry	1254 l	
13026-04	Break room	1203 l	
13026-05	Shop-outside door to break area	1203 l	
13026-06	Field blank	0	
13026-07	Field blank	0	11/29/13

Client Sample # (s): 13026-01 — 13026-07 Total # of Samples: 7

Relinquished (Client): DKNiz Date: 11/29/13 Time: 1530

Received (Lab): Tammy Davis Date: 12/2/13 Time: 8:05 EX

Comments/Special Instructions:
Please analyze by NOSH 7400 and AHERA TEM. Call w/questions,—
Debra's cell 208-521-3885. Facility is not a school.

EMSL Analytical, Inc.
2001 East 52nd St., Indianapolis, IN 46205
Phone/Fax: (317) 803-2997 / (317) 803-3047
http://www.EMSL.com indianapolislab@emsl.com

EMSL Order:	161318977
CustomerID:	TEEH25
CustomerPO:	13026
ProjectID:	

Attn: **Debra K. Nims**
Teton Environmental Health, Inc
1106 Lowell Drive
Idaho Falls, ID 83402

Phone:	(208) 523-6713
Fax:	
Received:	12/02/13 8:05 AM
Analysis Date:	12/2/2013
Collected:	11/29/2013

Project: **ITD FIGBY FACILITY 13026**

Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method, Revision 3, Issue 2, 8/15/94

Sample	*Location*	*Sample Date*	*Volume (liters)*	*Fibers*	*Fields*	*LOD (fib/cc)*	*Fibers/ mm²*	*Fibers/ cc*	*Notes*
13026-01 *161318977-0001*	WHSE	11/29/2013	1254.00	9	100	0.002	11.5	0.004	
13026-02 *161318977-0002*	BRK RM	11/29/2013	1254.00	6	100	0.002	7.64	0.002	
13026-03 *161318977-0003*	HALL	11/29/2013	1254.00	<5.5	100	0.002	<7.01	<0.002	
13026-04 *161318977-0004*	BRK RM	11/29/2013	1203.00	8.5	100	0.002	10.8	0.003	
13026-05 *161318977-0005*	SHOP	11/29/2013	1203.00	<5.5	100	0.002	<7.01	<0.002	
13026-06 *161318977-0006*	FIELD BLANK	11/29/2013		<5.5	100		<7.01		Field Blank
13026-07 *161318977-0007*	FIELD BLANK	11/29/2013		<5.5	100		<7.01		Field Blank

The results reported have been blank corrected as applicable.

Analyst(s)

Susan Harding (7)

Richard K. Harding

Richard Harding, Laboratory Manager
or other approved signatory

Limit of detection is 7 fibers/mm². Intra-laboratory Sr values: 5-20 fibers = 0.39, 21-50 fibers = 0.28, 51-100 fibers = 0.21. Inter-laboratory Sr values (Average of EMSL round robin data) = 0.29. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. EMSL is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. Results have been blank corrected as applicable. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN AIHA-LAP, LAP, LLC--IHLAP 157245, AZ0939, CO AL-15132, TX 300262

Initial report from 12/02/2013 14:51:34

EMSL Analytical, Inc.
2001 East 52nd St., Indianapolis, IN 46205
Phone/Fax: (317) 803-2997 / (317) 803-3047
http://www.EMSL.com indianapolislab@emsl.com

EMSL Order:	161318977
CustomerID:	TEEH25
CustomerPO:	13026
ProjectID:	

Attn: **Debra K. Nims**
Teton Environmental Health, Inc
1106 Lowell Drive
Idaho Falls, ID 83402

Phone:	(208) 523-6713
Fax:	
Received:	12/02/13 8:05 AM
Analysis Date:	12/3/2013
Collected:	11/29/2013

Project: **ITD FIGBY FACILITY 13026**

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

Sample	Location	Volume (Liters)	Area Analyzed (mm^2)	Non Asb	Asbestos Type(s)	# Structures ≥ 0.5μ < 5	# Structures ≥5μ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm^2)	Asbestos Concentration (S/cc)
13026-01 *161318977-0008*	WHSE	1254.00	0.0655	0	None Detected			0.0047	**<15.00**	**<0.0047**
13026-02 *161318977-0009*	BRK RM	1254.00	0.0655	0	None Detected			0.0047	**<15.00**	**<0.0047**
13026-03 *161318977-0010*	HALL	1254.00	0.0655	0	None Detected			0.0047	**<15.00**	**<0.0047**
13026-04 *161318977-0011*	BRK RM	1203.00	0.0655	0	None Detected			0.0049	**<15.00**	**<0.0049**
13026-05 *161318977-0012*	SHOP	1203.00	0.0655	0	None Detected			0.0049	**<15.00**	**<0.0049**

Analyst(s)

Richard Harding (5)

Richard K. Harding

Richard Harding, Laboratory Manager
or other approved signatory

Initial report from 12/03/2013 09:49:19

161318976

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*: 161318976

EMSL ANALYTICAL, INC.
2001 EAST 52ND STREET
INDIANAPOLIS, IN, 46205
PHONE: (317) 803-2997
FAX: (317) 803-3047

Company : Teton Environmental Health, Inc.	**EMSL-Bill to:** ☒ Same ☐ Different If Bill to is Different note instructions in Comments**
Street: Teton Environmental Health, Inc.	*Third Party Billing requires written authorization from third party*
City: Idaho Falls / **State/Province: ID**	**Zip/Postal Code: 83402** / **Country:**
Report To (Name): Debra K. Nims	[redacted]
Telephone #: 208-523-6713	**Email Address: dkn@tetonenvironmental.com**
Project Name/Number: ITD - Rigby; 13026	
Please Provide Results: ☐ Fax ☑ Email	**Purchase Order:** 13026 / **U.S. State Samples Taken:** ID

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hours ☐ 6 Hours ☒ 24 Hrs ☐ 48 Hrs ☐ 3 Days ☐ 4 Days ☐ 5 Days ☐ 10 Days

*For TEM Air 3 hours/6 hours, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air
- ☐ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
- ☐ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198.6 NOB (non-friable-NY)
- ☐ NIOSH 9002 (<1%)

TEM - Air
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☒ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ EPA Protocol (Semi-Quantitative)
- ☐ EPA Protocol (Quantitative)

Other:
- ☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group**

Samplers Name: **Samplers Signature:**

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
13026-08	Top shelf in warehouse under HVAC	≈100cm²	11/29/13
13026-09	Top surface of HVAC dist duct	≈100 cm²	
13026-10	Top surface of conduit- SE corner break room	≈100 cm²	
13026-11	Top of cupboards under HVAC- break room	≈350 cm²	
13026-12	Top of tool box #420 in shop	≈100 cm²	
13026-13	Field blank	0	11/29/13

Client Sample # (s): 13026-08 – 13026-13 **Total # of Samples:** 6

Relinquished (Client): DKNims **Date:** 11/29/13 **Time:** 1530

Received (Lab): [signature] **Date:** 12/2/13 **Time:** 8.05 AM

Comments/Special Instructions:

EMSL Analytical, Inc.
2001 East 52nd St., Indianapolis, IN 46205
Phone/Fax: (317) 803-2997 / (317) 803-3047
http://www.EMSL.com indianapolislab@emsl.com

EMSL Order:	161318976
CustomerID:	TEEH25
CustomerPO:	13026
ProjectID:	

Attn: **Debra K. Nims**
Teton Environmental Health, Inc
1106 Lowell Drive
Idaho Falls, ID 83402

Phone:	(208) 523-6713
Fax:	
Received:	12/02/13 8:05 AM
Analysis Date:	12/3/2013
Collected:	11/29/2013

Project: **ITD RIGBY 13026**

Test Report: Asbestos Analysis of Wipe Samples Using Method ASTM 6480-05

SAMPLE ID	AREA SAMPLED (cm^2)	ASBESTOS TYPE	ASBESTOS STRUCTURES	Sensitivity (str/cm^2)	CONCENTRATION (str/cm^2)	COMMENTS
13026-08 *161318976-0001*	100	Chrysotile	<2.99	4940	<14800	Analytical sensitivity not achieved due to sample debris loading.
13026-09 *161318976-0002*	100	None Detected	<2.99	4940	<14800	Analytical sensitivity not achieved due to sample debris loading.
13026-10 *161318976-0003*	100	Chrysotile	12	989	11900	Analytical sensitivity not achieved due to sample debris loading.
13026-11 *161318976-0004*	350	Chrysotile	<2.99	565	<1690	Analytical sensitivity not achieved due to sample debris loading.
13026-12 *161318976-0005*	100	None Detected	<2.99	9890	<29600	Analytical sensitivity not achieved due to sample debris loading.
13026-13 *161318976-0006*	0	None Detected	<2.99			Blank

Analyst(s)

Susan Harding (6)

Richard K. Harding

Richard Harding, Laboratory Manager
or other approved signatory

Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN

Initial report from 12/03/2013 11:13:55